Climate may have triggered toxic algae bloom hurting Salem's water

ZACH URNESS
Statesman Journal

Connor Radnovich/Statesman-Journal via AP

Robin Jennings from public works wipes sweat from her face while passing out bottled water at a water distribution site at the Oregon State Fairgrounds in Salem on Wednesday. A limited no-drink warning for tap water in and around the Oregon state capital was re-issued Wednesday, reinstating for at least two days guidelines advising medically sensitive people to find other water sources as a city spokesman acknowledged a lag in testing for toxins in the water.

SALEM — One of the hottest and driest months of May on record may have contributed to the growth and spread of the toxic algae bloom wreaking havoc in Salem's drinking water.

The algae bloom was originally spotted in Detroit Lake on May 8 and reached highly toxic levels around May 21, according to officials.

The record heat and dry conditions apparently kept the bloom strong, allowing the toxins to spread from the reservoir, into the North Santiam River and finally into Salem's drinking water for the first time at dangerous levels.

Salem issued its second do-not-drink alert Wednesday for vulnerable populations following the discovery, for the second week in a row, of high levels of cyanotoxins in the drinking water.

"We have a toxic algae bloom at Detroit Lake just about every year at this time," said U.S. Forest Service Detroit district ranger Grady McMahan. "In most years, we get some rain that helps dissipate the bloom and kind of clear out the lake. But this year we just didn't get rain — it was sunny and dry for an entire month which probably helped it."

The month of May was parched by every standard. It was the fourth-driest and sixth- hottest May in records dating back to 1892, National Weather Service officials said.

In a normal May, the Willamette Valley and Cascade Foothills would get 2.5 to 3 inches of precipitation. This year, only a quarter inch of rain fell, NWS officials said.

Hot and dry conditions can fuel the growth and potency of toxic algae, said Rebecca Hillwig, natural resource specialist with the Oregon Health Authority.

Both Hillwig and McMahan said toxic algae blooms have been more common, perhaps suggesting a link to the string of abnormally hot and dry spring months Oregon has seen in the past four years.

"I think it's fair to say that factors associated with global warming — hotter and drier conditions and a rapid snowmelt — could definitely increase conditions that cause algae blooms," Hillwig said.

"There's a lot of factors to consider, but it's fair to say that we have the potential for more of these type of issues in the future."

The first evidence of an algae bloom at Detroit Lake occurred May 8, said Lacey Goeres-Priest, Salem's water quality supervisor.

The city regularly tests for toxins at Detroit and "we had good results for many days following" the first evidence of the bloom, Goeres-Priest said.

In other words, the bloom hadn't turned toxic yet.

As the weather warmed, the bloom grew and developed toxins — specifically, the cyanotoxins known as cylindrospermopsin and microcystin.

Water samples taken May 21 came back with results May 23 that revealed toxin levels high enough to trigger a health advisory for Detroit Lake.

There is, again, nothing particularly unusual about that.

Locals often reference the wildflowers and algae blooming at the same time of year — it's become part of life in the small tourist town.

Salem officials were confident enough they issued a press release on May 23 titled "City of Salem drinking water remains safe to drink."

Even so, there were hints something was different about this bloom.

Instead of one bloom — as was the case in 2017 — testing revealed toxic algae in three different locations at the lake: Blowout Arm, Heater Creek Arm and near the dam.

More strikingly, the toxin levels were high in Blowout Arm — the liver toxin "microcystin" was tested at 48.21 parts per billion. A health advisory is triggered when levels are 4 parts per billion.

"It's not the highest level of toxin that we've ever seen, but it is high," Hillwig said. "If you get a high enough level, the toxins can travel a long way downstream, so it could make sense that that's what happened here."

The toxins at Detroit Lake led to increased testing by city officials, including at Geren Island Treatment Facility on the North Santiam River.

Those tests showed concerning data.

Tests from May 23 showed the toxin cylindrospermopsin at 6.9 parts per billion — above the safe threshold even for adults, according to OHA officials.

Corrections

The *East Oregonian* works hard to be accurate and sincerely regrets any errors. If you notice a mistake in the paper, please call 541-966-0818.

BRIEFLY

Former Oregon first lady will file for bankruptcy

PORTLAND (AP) — A former Oregon first lady will file for bankruptcy protection after accumulating about $125,000 in debts and penalties during a legal battle with *The Oregonian* newspaper, her lawyer said.

Former first lady Cylvia Hayes' lawyer, Eli Stutsman, said in a court filing Wednesday that she plans to file for bankruptcy this week.

Hayes, who was Gov. John Kitzhaber's fiance when he was elected to his third term in 2010, also faces a potential six-figure fine for violating state ethics laws, *The Oregonian*/OregonLive reported .

Hayes and the newspaper got into a legal battle after it submitted a public records request in 2014 for her emails for an investigation into her consulting contracts. At the time, Hayes argued that she was not subject to public records laws.

Hayes is expected to drop an appeal challenging the $125,000 she was ordered to pay the newspaper for its legal fees since the bankruptcy could shield her from paying the full legal costs.

"Appellant will soon file for bankruptcy protection and this court's decision, whether affirming or reversing, will not alter appellant's decision to file for bankruptcy protection," Stutsman wrote in his motion."Either way, win or lose on appeal, appellant will soon seek bankruptcy protection and there is no need or benefit for any party or the court to incur further time on this matter."

She was the subject of influence-peddling scandal since her consulting business had increasingly relied on government contracts.

In January, Oregon's ethics watchdog found that she misused her position as first lady and a policy adviser to secure consulting contracts worth more than $200,000.

Father drowns, son not found off Oregon Coast

ROCKAWAY BEACH (AP) — The U.S. Coast Guard has suspended its search for a 17-year-old Colorado boy who disappeared off the Oregon Coast while boogie boarding after he was hit by a wave.

The Coast Guard said Thursday in a press release that the boy's father, 50-year-old Robert Joseph Allen, drowned while trying to rescue his son, Samuel Vicente Allen.

The elder Allen's body was recovered by a rescue swimmer but he could not be resuscitated.

The younger Allen was presumed drowned in 58-degree water off Rockaway Beach in central Oregon.

The Coast Guard says the teen's stepmother called 911 about 2:30 p.m. Wednesday to say both her husband and stepson had disappeared in the surf.

Oregon gets funding from cryptocurrency

EUGENE (AP) — Global cryptocurrency company Ripple will give $1 million in real money to the University of Oregon to support the study of the digital payment industry.

The Register-Guard newspaper of Eugene reports San Francisco-based Ripple will give the university the money in a five-year agreement. The university is among 17 to receive funding from the company, which is donating more than $50 million in all. Ripple will also provide technical support and resources.

Uuniversity of Oregon Provost Jayanth Banavar says the university feels very fortunate and that the money will help in improve its efforts in this area.

The newspaper says Ripple's donation will support a new program on cryptocurrency.

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Regional Publisher and Revenue Director:
Christopher Rush
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Advertising Services: Grace Bubar
541-276-2214 • gbubar@eastoregonian.com
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541-966-0838 • sports@eastoregonian.com

Business Office Manager: Janna Heimgartner
541-966-0822 • jheimgartner@eastoregonian.com

COMMERCIAL PRINTING
Production Manager: Mike Jensen
541-215-0824 • mjensen@eastoregonian.com

AccuWeather Forecast

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TODAY	SATURDAY	SUNDAY	MONDAY	TUESDAY
Partly sunny	Cooler; a few morning showers	Clouds and sun, a shower; breezy	Partly sunny and beautiful	Mostly sunny and warmer
PENDLETON TEMPERATURE FORECAST				
82° 52°	65° 46°	65° 49°	71° 46°	81° 54°
HERMISTON TEMPERATURE FORECAST				
87° 57°	71° 50°	71° 51°	78° 48°	86° 55°

ALMANAC

PENDLETON
through 3 p.m. yesterday

TEMPERATURE

	HIGH	LOW
Yesterday	82°	52°
Normals	76°	51°
Records	104° (1931)	34° (1919)

PRECIPITATION

24 hours ending 3 p.m.	0.00"
Month to date	Trace
Normal month to date	0.40"
Year to date	6.07"
Last year to date	9.26"
Normal year to date	6.91"

HERMISTON
through 3 p.m. yesterday

TEMPERATURE

	HIGH	LOW
Yesterday	86°	56°
Normals	77°	52°
Records	102° (2016)	40° (2002)

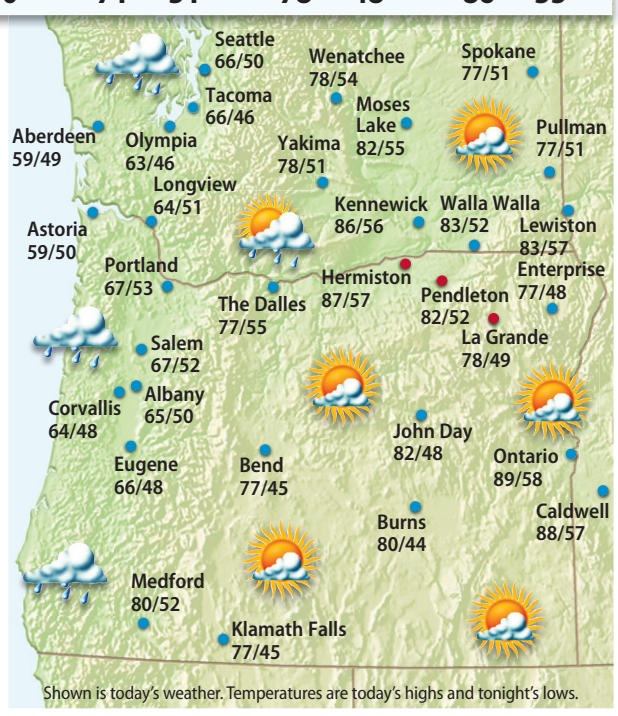
PRECIPITATION

24 hours ending 3 p.m.	0.00"
Month to date	0.00"
Normal month to date	0.19"
Year to date	4.96"
Last year to date	6.42"
Normal year to date	5.30"

SUN AND MOON

Sunrise today	5:06 a.m.
Sunset tonight	8:42 p.m.
Moonrise today	2:25 a.m.
Moonset today	2:44 p.m.

New	First	Full	Last
June 13	June 20	June 27	July 6



Shown is today's weather. Temperatures are today's highs and tonight's lows.

REGIONAL FORECAST

Coastal Oregon: Showers across the north today; rain and drizzle in central parts. Partly sunny in the south.

Eastern and Central Oregon: Partly sunny today; pleasant near the Cascades.

Western Washington: Mostly cloudy today; brief showers; however, heavy showers at the coast.

Eastern Washington: Sun and some clouds today. Spotty showers tonight, except dry toward the Cascades.

Cascades: Mostly cloudy today; occasional afternoon rain and drizzle across the north.

Northern California: Partly sunny today; pleasant at the coast. Mainly clear tonight.

REGIONAL CITIES

	Today Hi	Lo	W	Sat. Hi	Lo	W
Astoria	59	50	sh	59	48	t
Baker City	82	50	pc	58	36	sh
Bend	77	45	pc	56	34	sh
Brookings	60	48	pc	57	45	t
Burns	80	44	pc	57	30	t
Enterprise	77	48	pc	53	38	sh
Eugene	66	48	r	60	44	t
Heppner	79	50	pc	61	44	t
Hermiston	87	57	pc	71	50	sh
John Day	82	48	pc	55	37	t
Klamath Falls	77	45	pc	55	30	t
La Grande	78	49	pc	55	40	sh
Meacham	76	46	pc	53	39	sh
Medford	80	52	pc	61	44	t
Newport	59	48	sh	56	46	t
North Bend	62	50	r	59	47	t
Ontario	89	58	pc	73	47	sh
Pasco	86	56	pc	68	49	sh
Pendleton	82	52	pc	65	46	sh
Portland	67	53	sh	63	49	t
Redmond	80	43	pc	59	34	sh
Salem	67	52	r	62	47	t
Spokane	77	51	pc	58	44	c
Ukiah	77	45	pc	53	37	t
Vancouver	66	53	sh	61	48	t
Walla Walla	83	52	pc	63	48	sh
Yakima	78	51	pc	68	44	c

WORLD CITIES

	Today Hi	Lo	W	Sat. Hi	Lo	W
Beijing	90	69	c	75	61	sh
Hong Kong	88	82	t	90	81	sh
Jerusalem	88	65	s	86	65	s
London	71	54	t	72	55	pc
Mexico City	78	58	pc	79	59	pc
Moscow	58	39	r	57	42	pc
Paris	78	61	pc	80	63	t
Rome	76	60	t	77	61	pc
Seoul	78	63	pc	84	61	t
Sydney	66	56	c	63	54	sh
Tokyo	80	69	pc	83	66	pc

WINDS

(in mph)	Today	Saturday
Boardman	WSW 6-12	WSW 8-16
Pendleton	NW 6-12	SW 7-14

UV INDEX TODAY

8 a.m.	10 a.m.	Noon	2 p.m.	4 p.m.	6 p.m.
2	5	9	9	4	1

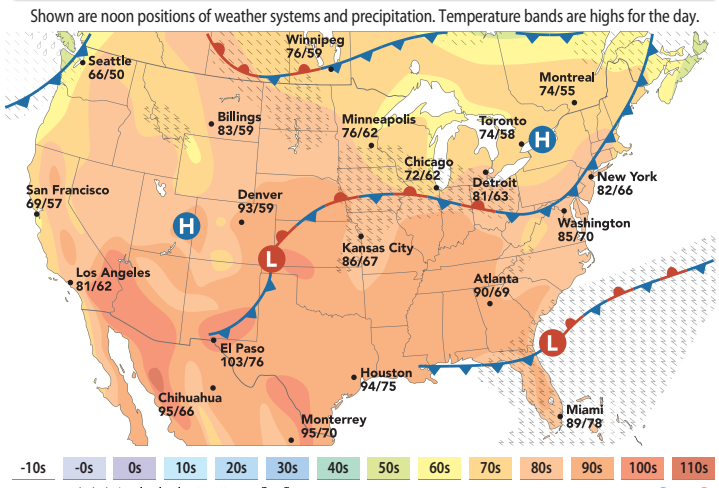
0-2, Low **3-5**, Moderate **6-7**, High; **8-10**, Very High; **11+**, Extreme

The higher the **AccuWeather.com UV Index™** number, the greater the need for eye and skin protection.

Forecasts and graphics provided by AccuWeather, Inc. ©2018

NATIONAL WEATHER TODAY

Shown are noon positions of weather systems and precipitation. Temperature bands are highs for the day.



National Summary: Rain and heavy thunderstorms will affect part of the Midwest, while severe storms rattle Nebraska and the Dakotas today. Storms will dot Florida while rain, mountain snow and colder air near the Northwest.

Yesterday's National Extremes: (for the 48 contiguous states)
High 105° in Needles, Calif. **Low** 25° in Bodie State Park, Calif.

NATIONAL CITIES

	Today Hi	Lo	W	Sat. Hi	Lo	W
Albuquerque	94	65	pc	91	65	s
Atlanta	90	69	pc	89	71	pc
Atlantic City	75	64	pc	73	63	t
Baltimore	83	67	pc	83	64	t
Billings	83	59	pc	91	58	pc
Birmingham	93	70	s	90	70	pc
Boise	89	59	pc	77	44	pc
Boston	78	60	pc	77	57	s
Charleston, SC	84	71	t	88	73	pc
Charleston, WV	89	64	pc	89	66	t
Chicago	72	62	t	74	64	c
Cleveland	80	64	pc	73	61	r
Dallas	95	75	pc	96	76	pc
Denver	93	59	pc	95	65	s
Detroit	81	63	pc	74	60	r
El Paso	103	76	pc	98	75	s
Fairbanks	70	47	c	69	50	sh
Fargo	81	64	c	81	66	t
Honolulu	88	75	pc	87	75	pc
Houston	94	75	pc	94	76	pc
Indianapolis	90	70	pc	85	68	pc
Jacksonville	89	71	t	87	71	t
Kansas City	86	67	t	90	70	pc
Las Vegas	102	78	s	103	75	s
Little Rock	94	72	pc	94	73	pc
Los Angeles	81	62	pc	81	61	pc

	Today Hi	Lo	W	Sat. Hi	Lo	W
Louisville	93	72	pc	88	71	pc
Memphis	94	73	pc	92	74	pc
Miami	89	78	t	87	76	t
Milwaukee	65	56	r	67	55	c
Minneapolis	76	62	t	77	64	c
Nashville	95	70	s	92	70	pc
New Orleans	92	74	s	91	75	t
New York City	82	66	pc	80	62	t
Oklahoma City	91	72	pc	95	72	pc
Omaha	90	72	pc	90	72	pc
Philadelphia	84	65	pc	80	63	t
Phoenix	108	82	pc	110	82	s
Portland, ME	77	50	s	75	50	s
Providence	80	58	pc	80	57	pc
Raleigh	88	67	pc	90	70	pc
Rapid City	84	58	t	86	59	t
Reno	87	56	s	74	42	pc
Sacramento	87	57	s	79	54	pc
St. Louis	91	74	pc	90	73	pc
Salt Lake City	89	67	s	95	59	s
San Diego	75	62	pc	76	63	pc
San Francisco	69	57	pc	67	54	pc
Seattle	66	50	sh	63	48	t
Tucson	105	74	pc	104	75	s
Washington, DC	85	70	pc	84	67	t
Wichita	91	70	pc	97	74	pc

Weather (W): **s**-sunny, **pc**-partly cloudy, **c**-cloudy, **sh**-showers, **t**-thunderstorms, **r**-rain, **sf**-snow flurries, **sn**-snow, **i**-ice